

VIII. *On some new or imperfectly-known species of South African butterflies.* By ROLAND TRIMEN, F.R.S., F.L.S., &c., Curator of the South African Museum, Cape Town.

[Read February 8th, 1893.]

PLATE VIII.

The butterflies described in this paper are as follows, *vid.* :—

LYCÆNIDÆ.

- Lycæna Grahmi*, n. sp. ♂, ♀. Cape Colony.  
 ,, *procera*, n. sp. ♂, ♀. Natal.  
 ,, *Osiris*, Hopff. ♀. Natal.  
 ,, *Barkeri*, n. sp. ♂, ♀. Natal.  
*Lycænesthes neglecta*, Trim. ♀. Natal.  
 ,, *Millari*, n. sp. ♂. Natal.  
 ,, *minima*, n. sp. ♂, ♀. Natal.  
*Zeritis simplex*, n. sp. ♂, ♀. Cape Colony, Damaraland, &c.

PAPILIONIDÆ.

- Papilio Junodi*, n. sp. ♂, ♀. Delagoa Bay.

HESPERIDÆ.

- Pamphila Roncilgonis*, Plötz. ♂, ♀. Delagoa Bay and Angola.  
 ,, *detecta*, n. sp. ♂, ♀. Natal.

Eight of these eleven species are forms apparently undescribed hitherto; and of the remaining three species, two have been known in the male sex only, while another has been insufficiently described.

Family LYCÆNIDÆ.

Genus LYCÆNA, *Fab.*

*Lycæna Grahmi*, n. sp. (Pl. VIII., figs. 1 (♂), 2 (♀)).

Exp. al. (♂), 1 in. 4—5 lin.; (♀), 1 in. 6 lin.

♂. *Glossy, rather deep violaceous blue (not so pale as in L. patricia, Trim., or so glittering as in L. Caffrariæ, Trim.), with narrow but pronounced fuscous hind-marginal edging; cilia white, shining, more or less completely interrupted with fuscous at ends of nervules. Fore wing: Terminal disco-cellular fuscous*

mark rather indistinct, almost linear. *Hind wing* : Costal margin bordered with fuscous grey as far as 1st subcostal nervule ; between 1st and 2nd median nervules a hind-marginal blackish spot, not strongly marked, elongated longitudinally ; no tail on 1st median nervule. *UNDER SIDE*.—*Brownish grey* (darker than in *L. patricia*, and greyer than in *L. Caffrariæ*) ; ordinary terminal disco-cellular mark, and discal and submarginal series of spots, darker and browner than ground colour, and on both sides white-edged ; in hind wing a conspicuous white discal transverse bar (much as in *L. Pephredo*, Trim., but not so sinuate) formed by confluence of the diffuse outer white edging of the discal macular series and inner lunulate edging of inner submarginal macular series ; nervular interruptions of cilia dark brown, better defined than on upper side. *Fore wing* : Terminal disco-cellular mark very variable in width and shape, but almost always with a more or less pronounced median outer projection ; six spots of discal series rather large (the first smallest, the last largest), connected so as to form a regular very slightly curved chain ; submarginal and hind-marginal lunulate series closely crowded together between discal series and cilia, the outer lunules being especially narrow and faint, but their sagittiform thin inner white edgings piercing the lunules of the inner series between nervules. *Hind wing* : Subbasal series consisting of four white-ringed spots, the first circular, black, well-defined ; the second subovate, brown, disco-cellular ; the third immediately below the second, small, brown, obsolescent ; and the fourth small, fuscous, almost as well defined as the first, on inner margin ; between costal nervure and 1st subcostal nervule, about middle, a conspicuous round black spot, like the 1st subbasal one, but larger, is, though widely separated, the first of the discal series ; terminal disco-cellular lunule outwardly angulated, and almost always confluent with 3rd and 4th spots of discal series ; of this series, spots 2—7 are brown, unequally elongated, and confluent into an irregular band, while the 8th, on inner margin, is small, round, and almost as black as the 1st ; *white band immediately beyond discal series narrow and interrupted near costa and inner margin, but elsewhere broad, almost even, and conspicuous* ; sagittiform inner white edgings of outer lunules usually rather faint ; black hind-marginal spot between 1st and 2nd median nervules densely spangled with greenish silvery externally ; below it, just above submedian nervure, usually the traces of a similar much smaller spot.

♀. *Dull greyish brown, with a space (variable in width) of violaceous blue in both wings from base over median nervure and its nervules. Fore wing* ; Blue encroaches superiorly over lower

half of discoidal cell, and is bounded inferiorly by submedian nervure; terminal disco-cellular mark fully twice as broad as in ♂; in one example faint traces of an almost median series of fuscous spots bounding the blue externally. *Hind wing*: Blue fainter and more restricted in width than in fore wing; hind-marginal blackish spot much larger and rounder than in ♂, and bounded internally by a broad dusky orange lunule. *UNDER SIDE*.—As in ♂, but ground colour slightly browner.

(Described from eighteen male and three female examples). On the upper side the ♂ most resembles the ♂ *L. Tantalus*, Trim., but is not of so dull a tint,\* and has interrupted instead of uniform cilia. On the under side the ♂ differs entirely from *Tantalus*, coming, on the whole, closest to *L. Caffrariæ*, Trim., although, in the form of the distal white bar of the hind wings, it is nearer to the ♂ *L. Pephredo*, Trim., which is not blue above, but dark greyish brown. On the upper side the ♀ *Grahami* is most like the ♀ *Caffrariæ*, but differs in its much darker ground colour, absence of whitish discal and hind-marginal lunules, and faint and much reduced orange lunule in hind wing.

This species was first brought to my notice by Mr. U. L. Langley Feltham, of Kimberley, who received three ♂ specimens from Mr. Francis Graham, and sent them to me in July, 1891, with the information that they had been taken at Dordrecht, on the N.E. side of Cape Colony, by the latter. Since then Mr. Graham, who has most zealously and assiduously attended to the butterflies of his district, has presented to the South African Museum the series of this species above described; and it is in recognition of his services to Entomology that I have named the insect after him. He notes this *Lycæna* as frequenting rough broken ground, and having a rapid, restless, and jerky flight, which renders its capture most difficult. It is on the wing in December, January, and February.

*Hab.* Dordrecht, Cape Colony (*F. Graham*).

*Lycæna procera*, sp. n. (Pl. VIII., figs. 3 (♂), 4 (♀)).

*Exp. al.* (♂), 1 in. 5—5½ lin.; (♀), 1 in. 6 lin.

♂. *Pale olivaceous blue (close to tint of ♂ L. Bœtica); fore*

\* The colour is that exhibited by the males of the European *L. Argiodes* (Pall.) and *Semiargus*, Rott.

*wing with a broad, internally ill-defined, brownish grey hind-marginal border; hind wing with a broad costal and apical, but narrow sublinear, hind-marginal border, the latter preceded by a series of very faint small fuscous spots; cilia whitish, for the most part grey at origin; no tail. Fore wing: A moderately distinct, rather thin, terminal disco-cellular fuscous lunule, sub-angulated outwardly; some very faint indications of darker and lighter markings traversing grey border. Hind wing: Costal grey border extending as far as 2nd subcostal nervule; hind-marginal series of five spots, immediately preceded by faint indications of whitish lunules, and succeeded by an interrupted whitish line; the spot between 1st and 2nd median nervules less indistinct than the rest. UNDER SIDE.—Pale brownish grey; ordinary markings most like those of *L. Letsea*, *Trim.*, the discal and subbasal spots being small but well defined, and very distinctly white-ringed. Fore wing: Terminal disco-cellular lunule white-edged on both sides; spots of discal series (which is almost straight) five, with the trace of a sixth below 1st median nervule; the third spot, between lower radial and 3rd median nervules, more elongate than the rest, and obliquely placed; two rows of white submarginal lunules, and a thin white line immediately before hind margin, all well defined. Hind wing: Three small round black spots in subbasal series, of which that on inner margin is much smaller than the others; first and last spots of irregular discal series like the subbasal ones, and considerably before the rest; the other spots darker or lighter brown, like those in fore wing, but the 2nd quite apart from the 3rd, and the 7th beyond the 6th; white submarginal lunules and streak well defined; a hind-marginal black spot, externally marked with bluish silvery, and bounded internally by a dull yellowish lunule, between 1st and 2nd median nervules; cilia white, traversed mesially by a grey line, more apparent in hind wing.*

♀. *Similar to ♂, but with darker and broader hind-marginal border, and in fore wing also a broad costal border of the same dark tint. Fore wing: Costal border extends from base and occupies upper half of discoidal cell. Hind wing: Hind-marginal spots and lunules less indistinct than in ♂, the spot between 1st and 2nd median nervules bounded internally by traces of a dull orange-yellow lunule. UNDER SIDE.—As in ♂.*

The most distinctive feature of this *Lycæna* is the length of its wings, and especially of the fore wings, which are also exceptionally acute apically. The close resemblance between the sexes is further noticeable, as

well as the little but apparently constant character of the oblique position and elongation of the third spot in the discal series on the under side of the fore wings. The species does not closely approximate to any South African form, but may provisionally follow *L. Letsea*, although in the latter both sexes are dull greyish brown on the upper side.

In length of wing *L. procera* reminds one of the European *L. Alcon*, W. V., but the two species are totally different in other respects.

A solitary ♂ of this *Lycæna* was acquired by the South African Museum in 1879, in a collection made in the Transvaal by Mr. T. Ayres; and another example of the same sex subsequently reached me from Estcourt, Natal, where it had been taken by Mr. J. M. Hutchinson. Quite recently (in August, 1892), Mr. Hutchinson sent three more males and a female, captured in the same locality, and has thus enabled me to define the species sufficiently.

*Hab.* Estcourt, Natal (*J. M. Hutchinson*); Potchefstroom District, Transvaal (*T. Ayres*).

*Lycæna Osiris*, Hopff.

♂ *Lycæna Osiris*, Hopff., Monatsb. Preuss. Ak. Wissensch., 1855, p. 642, n. 21.

♀. *Exp. al.* 1 in.  $1\frac{1}{2}$ — $4\frac{1}{2}$  lin.

*Fuscous, with a limited but bright violaceous blue median space in fore wing, and a faint gloss of the same tint over the inferior half of hind wing. Fore wing:* Blue extends from near base to beyond middle, covering median nervure and a considerable length of its three nervules, but not more than inferior half of discoidal cell, and extending along inner margin to scarcely beyond middle, so as to leave a very broad, costal, apical, and hind-marginal fuscous border; a terminal disco-cellular narrow fuscous transverse mark, the lower part of which is rather conspicuous on the blue; cilia grey, mixed with whitish, becoming white at posterior angle. *Hind wing:* Blue occupying much the same position as in fore wing, but faintly extending nearer to hind margin; costal border as far as 2nd subcostal nervule unbrokenly fuscous to apex, below 2nd subcostal nervule, an inner submarginal row of sagittiform, and an outer one of lunular more or less distinct white marks; in the inner row, the two marks between 2nd median nervule and submedian nervure are usually obsolete or obsolescent;

in the outer row, the two marks correspondingly situated are altered and expanded into very broad bright orange lunules; immediately before fuscous line bounding hind margin a more or less conspicuous white line, broken by nervules into portions which form imperfect irregular rings in combination with the outer sub-marginal row of white marks; externally bounding the two broad orange lunules are two conspicuous black spots; cilia white, tipped with grey, and with grey linear nervular interruptions. UNDER SIDE.—As in ♂, but slightly browner in tint, and with all the white-edged markings rather darker. *Fore wing*: Small white-ringed subcostal spot before discal series—so rare in ♂—almost always present and well defined.

The ♀ differs remarkably from the ♂ in her rounded wings, which are not prominent either at apex of fore wing or anal angle of hind wing, but with decidedly convex hind margins. This feature is one of those distinguishing it from the ♀ of its near ally, *L. Barkeri*, n. sp., the others being the darker ground colour and deeper blue above, the absence of any whitish discal markings on the upper side of the fore wings, the large and well-developed second (anal-angular) orange lunule in the hind wings, the small white-ringed costal spot on the under side of the fore wings, and the additional inner-marginal spot (8th) in the discal row on the under side of the hind wings.

Though evidently nearly related to *L. Cnejus*, Fab., a native of the Oriental and Australian regions, *L. Osiris* is decidedly distinct. The ♂ upper side is of a deeper violaceous with a marked cupreous gloss, and presents two conspicuous orange lunules internally bounding the two black hind-marginal spots of the hind wings. The ♀ has the upper side colouring (both the fuscous ground and the blue discs) of a much deeper tint, with much broader and brighter orange lunules in the hind wings. On the under side the resemblance to *Cnejus* is in both sexes very close, the only notable difference being the straighter, less interrupted, discal fascia in both fore and hind wings.

As noted above, *Osiris* varies greatly in size, especially in the ♀, where the range in expanse of the fore wings is  $\frac{1}{4}$  in. A dwarf ♀ from Delagoa Bay is rather under 1 in. in expanse. Both sexes occasionally present an unusually dull under side, with all the markings reduced in size, and more or less indistinct; this is possibly a

seasonal (winter) form, but I have not sufficient dated material to pronounce on the question. Two females from Madagascar in the South African Museum are well marked on both surfaces, and agree entirely with South African examples, except that, in the larger of the two, the submarginal sagittiform white marks on the upper side of the hind wings are somewhat enlarged and more elongated.

LOCALITIES OF *LYCÆNA OSIRIS*.—Natal, D'Urban and Pinetown (*D'Aquilar*); Delagoa Bay, Rekatla (*Rev. U. Junod*); Transvaal, Pretoria and Potchefstroom (*W. Morant*); Barberton (*C. F. Palmer*); Swaziland, Usutu River (*C. N. Barker*); Mozambique, "Querimba" (*Hopffer*); Madagascar, Murundava (*Grevé*); Southern Ambuella, Ourrora (*A. W. Erihsson*).

*Lycæna Barkeri*, n. sp. (Pl. VIII., figs. 5 (♂), 6 (♀)).

♀ *Lycæna Osiris*, Trim. (nec Hopff.), S. Afr. Butt., ii., p. 15 (1887).

*Exp. al.* (♂), 1 in.  $2\frac{1}{2}$ —4 lin.; (♀), 1 in. 2—5 lin. Nearly allied to *L. Osiris*, Hopff.

♂. *Pale shining pinkish violaceous (without cupreous gloss); a rather wide greyish fuscous hind-marginal edging (submacular in hind wing); cilia shining pale greyish, near anal angle of hind wing becoming white. Fore wing:* A short, thin, almost linear, terminal disco-cellular greyish fuscous lunule. *Hind wing:* A linear, black, white-tipped tail at extremity of 1st median nervule; immediately above this nervule a conspicuous hind-marginal black spot, bounded internally by a very broad orange-yellow lunule, and externally by a very fine white line, which is continued to anal angle, and here preceded by an elongate fuscous greyish marking. UNDER SIDE.—Very pale brownish grey, with white-edged darker markings arranged almost as in *Osiris*, but presenting the following differences:—*Fore wing:* Discal row less regular, its component spots more detached and out of line. *Hind wing:* 3rd (inner-marginal) spot of subbasal row further from base; discal macular row more irregular, its 1st (black, white-ringed) spot further before the 2nd, which is placed transversely, and its last spot the 7th (the inner-marginal one found in *Osiris* not being represented); black spot on hind margin inwardly bounded by broad orange-yellow lunule as on upper side, but marked externally with a greenish silvery line; at anal angle no 2nd black spot, but some greenish silvery scales preceded by some orange-yellow ones.

♀. *Brownish grey, rather widely suffused from bases with bright pale bluish; lower two-thirds of discs bearing submarginally two white lunular series representing those of the under side; in fore wing indistinct, but well marked in hind wing. Fore wing: Disco-cellular terminal lunule usually darker and thicker than in ♂; bluish suffusion extends over lower half of discoidal cell, along inner-marginal area and over disc to beyond middle; outer whitish lunular series obsolescent. Hind wing: Bluish suffusion much fainter and more restricted than in fore wing, but filling discoidal cell; hind-marginal white line extending along the whole hind margin; black spot and orange-yellow lunule much larger than in ♂; in most specimens a faint orange-yellow mark close to anal angle. UNDER SIDE.—As in ♂, but in many examples an additional very small, round, black, white-ringed spot close to inner margin near base of hind wing.*

As noted by me (*op. cit.*, p. 16) the under side in both sexes is sometimes very obscure, all the white markings being faint, and the subbasal and first discal round spots in the hind wing being scarcely or not at all darker than the rest. In a pair taken *in copulâ* by Col. Bowker the markings are all quite obsolescent, and in the ♀ hardly traceable. From the few dated specimens received, I am inclined to think that these feebly-marked individuals are a seasonal (winter) form of the species.

This species is distinguished from *L. Osiris*, Hopff., in both sexes, by having, on both upper and under sides of the hind wings, only one black hind-marginal spot and orange lunule (the lower one, if indicated at all, consisting of a simple trace of orange), and on the under side of the hind wings by wanting altogether the eighth (inner-marginal) spot of the discal series; also by the discal under side spots in both wings being more disconnected and in a less straight line; moreover, in neither sex does there ever appear the small separate white-ringed costal spot a little beyond the middle on under side of the fore wings, which is almost invariably present in the ♀ *Osiris*, and sometimes exhibited by the ♂. The want of cupreous gloss on the upper side, and the deeper browner tint of the under side further distinguish the ♂, and the paler duller upper side colouring and discal whitish lunules of the fore wings the ♀, from the corresponding sex in *Osiris*.

In my 'South African Butterflies' (ii., p. 15), I confused this species with *L. Osiris*, placing its ♀ as that of



the latter. Paucity of material chiefly occasioned this mistake, as I took no\* ♂ of *L. Barkeri* while in Natal; and, overlooking the only two true females of *Osiris* that I met with, I associated the females of *Barkeri* with the males of *Osiris* which I captured in the same localities. Colonel J. S. D'Aquilar first (May, 1889) called my attention to the true ♀ *Osiris*, as a ♀ *Lycæna* not included in my work, but approaching in its characters the ♀ I had described under that name. But it is to Mr. Cecil N. Barker, of Malvern, Natal, that I owe the rectification of the error, as he has not only pointed out the distinctions between the two forms, and sent much material in illustration of them, but has recently (May, 1891) forwarded a pair of each species taken *in copulâ*.† I have accordingly much pleasure in naming the apparently undescribed species after Mr. Barker, who has for some years collected and observed very carefully the butterflies of Natal and Zululand, and has latterly most liberally communicated both specimens and notes in aid of my researches.

As *L. Osiris* represents in Africa the Indo-Malayan *L. Cnejus*, Fab., so *L. Barkeri* may be considered as the representative of *L. Strabo*, Fab., which has almost as wide a range as *Cnejus*.‡ On the upper side, however, the ♂ *Barkeri* differs totally in colour, *Strabo* ♂ being of a bright pale lavender-blue; the former also presents in the hind wings an orange lunule (edging the hind-marginal black spot), which is wanting in the latter. The ♀ *Barkeri* is very like the ♀ *Strabo* on the upper side, but has the submarginal white markings larger and more elongated, and often very conspicuous. On the under side, in both sexes, the ground colour is of a much browner tint, and the discal fascia is in both wings less irregular than in *Strabo*; and the small but very distinct black spot at the anal angle borne by the latter species is wanting.

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\* Mr. Barker notes (February, 1892) that while the ♂ of *L. Barkeri* is much more rarely met with than the ♀, the reverse is the case with *L. Osiris*.

† *L. Osiris* on the Hleto River, and *L. Barkeri* (11th March, 1891) on the Little Usutu River, Swaziland.

‡ Mr. de Nicéville (Butt. Ind., &c., iii., p. 178) records a note by Mr. W. U. Irvine, that "he once took *C. Strabo* coupled with *C. Cnejus*, Fab."

*L. Barkeri* inhabits the same localities and presents the same habits as *L. Osiris* in Natal, haunting grassy spots; but Mr. Barker observes that the former frequents higher ground and shorter grass than the latter, and that he has not found the two species flying in company.

LOCALITIES OF *LYCÆNA BARKERI*. — Natal: D'Urban, Verulam. Zululand: St. Lucia Bay (*the late Colonel U. Tower*); Etshowe (*the late T. Vachell*). Transvaal: Lydenburg District (*T. Ayres*); Swaziland: Little Usutu River (*C. N. Barker*). Delagoa Bay: Lorenço Marques (*Mrs. Monteiro*); Rikatla (*Rev. U. Junod*). Southern Ambuella: Otiembora (*A. W. Erihsson*).

#### Genus *LYCÆNESTHES*, Moore.

*Lycænesthes neglecta*, Trim. (Pl. VIII., figs. 7 (♂), 8 (♀)).

♂ *Lycænesthes neglecta*, Trim., Trans. Ent. Soc. Lond., 1891, p. 175.

♀. *Exp. al.* 1 in. 1 lin.

*Brownish grey, paler on discs, with a moderately wide violaceous suffusion (very slightly glossed with cupreous, but at bases more distinctly blue) on basal area; hind wing with two rows of whitish lunules, the submarginal ones sagittate. Fore wing: Violaceous occupies only basal third or half of discoidal cell, and beneath cell extends to about or rather beyond middle of inner margin; a moderately distinct rather wide fuscous grey terminal disco-cellular lunulate transverse mark. Hind wing: Violaceous occupies much the same position as in fore wing, but does not extend beneath submedian nervure; six or seven lunules of submarginal row violaceous whitish, the first on costa, but the second widely separate from the first, below 2nd subcostal nervule; a very well-defined small black hind-marginal spot between 1st and 2nd median nervules, bounded inwardly by an orange-yellow lunule; an indistinct sublinear terminal disco-cellular fuscous grey mark. UNDER SIDE.—As in ♂, except that ground colour is decidedly paler, and with scarcely any brownish tinge, and all the white edgings of the markings are much more distinct.*

I have mentioned (*loc. cit.*) the near alliance of the ♂ to *L. Liodes*, Hewits., and also its points of relationship to the larger *L. Sylvanus* (Drury). The ♀ differs widely from the corresponding sex in both those species (and especially from *Liodes*) in the absence of any dark discal

markings in either wing on the upper side. In this respect, and in the colouring of the upper side, the ♀ *neglecta* more resembles the ♀ *L. livida*, Trim. (Trans. Ent. Soc. Lond., 1881, p. 443), but differs in the brighter and more restricted blue suffusion of both fore and hind wings.

I received the first specimen of the ♀ in February, 1891, from Mr. A. D. Millar, with the note that it had been recently taken by him at D'Urban; and this was followed, in May, by two examples taken respectively on the Siquasi River, Natal coast, and near Etshowe, Zululand, by Mr. C. N. Barker. The two latter localities were not recorded for the ♂ of this butterfly.

*Hab.* D'Urban (A. D. Millar) and Siquasi River (C. N. Barker), Natal; Etshowe (C. N. Barker), Zululand.

*Lycenesthes Millari*, n. sp. (Pl. VIII., fig. 9 (♂)).

*Exp. al.* (♂), 1 in. 1 lin.

♂. *Brownish grey, with a bright pale blue space, and a rather broad terminal disco-cellular transverse fuscous mark, in both wings.* *Fore wing:* Blue fills discoidal cell, but does not extend above or beyond it, and occupies basal half to inner margin, also narrowly extending along the latter to posterior angle; a black hind-marginal bounding line, immediately preceded by an indistinct broken whitish one; before the latter, between 1st median nervule and submedian nervule, a small faint bluish mark. *Hind wing:* Blue bounded superiorly (except for a slight tinge above discoidal cell near base) by subcostal nervule and its 2nd nervule, but extending in a fainter greyer tint over all remaining area, except a narrow inner-marginal and hind-marginal border; between 2nd subcostal nervule and submedian nervule, a hind-marginal series of rather well-defined subsagittiform whitish lunules, succeeded by a conspicuous line of pure white immediately preceding a fine hind-marginal black bounding line; each of the whitish lunules between 2nd median nervule and submedian nervule is bounded externally by a black spot; before this lunular series there are traces—along the outer edge of the greyish blue—of a similar series of whitish lunulate marks. *Cilia* of fore wing grey, except a whitish portion about posterior angle; of hind wing white next margin, greyish externally, and with very fine linear darker grey nervular interruptions. *UNDER SIDE.*—*Very pale brownish grey, with rather broad markings in both wings, vid.:* A broad terminal

disco-cellular marking, whitish in the middle, brownish grey on each side, and whitish edged anteriorly and posteriorly; and a discal series, inwardly inclined inferiorly, of similar confluent marks, more widely whitish mesially, of which, *in fore wing*, the 6th (lowest) is considerably larger than the rest; two submarginal lunulated whitish streaks, with the space between them rather darker than the ground colour; a sharply-defined black hind-marginal bounding line, immediately preceded by a white one; four whitish dots on costa, two above disco-cellular mark, and two above (one of them before) first mark of discal series; cilia white next bounding line, grey externally. *Hind wing*: Discal series of marks very irregular, the 1st (costal) separate from and before the 2nd, and just above terminal disco-cellular mark, the 3rd largest, subquadrate, and nearest hind margin, the 6th and 7th elongate, as near base as the 1st, and forming an angle on submedian nervure; a subbasal series of three small, rounded, fuscous white-ringed spots, one just below costal nervure, one in discoidal cell, and one on inner margin (the middle and lower spots more faintly marked in one example); on hind margin a well-marked black spot, bounded inwardly by an orange lunule, and sprinkled with bluish silvery scales, between 1st and 2nd median nervules, and a second similar marking at anal angle, crossed by submedian nervure.

This species is well characterised by the brightness and paleness of the upper side blue, and by the abruptness with which that colour in the fore wings terminates (except narrowly along inner margin) about the middle. From its near ally, *L. livida*, Trim., it differs on the upper side also in its greyer ground colour without cupreous gloss, in the much more strongly marked terminal disco-cellular mark of the fore wings; while in the hind wings there is no discal dusky streak, and no orange lunule between 1st and 2nd median nervules, but the hind-marginal white lunules are much more developed, and there are traces of a submarginal series of whitish lunules also. The under side is distinguished by its greyish ground (less brownish in tint), and more pronounced whitish markings, and in the hind wings by a subbasal series of three spots (instead of a single subcostal spot), and a rather more irregular discal macular series.

The discovery of this butterfly is due to Mr. A. D. Millar and Mr. C. W. Morrison, who together took speci-

mens near Estcourt, in Natal, on the 1st November, 1889, and each of whom kindly sent me an example. Only males were observed and captured; they are noted by both captors as flying round, settling upon, and chasing each other about a tree known as "wild cabbage," at the summit of a lofty hill.

I have the pleasure of associating with this butterfly the name of Mr. Millar, of D'Urban, an experienced observer of Lepidoptera, who since 1887 has rendered me most valuable assistance in working out the South African species.

*Hab.* Natal, Estcourt (*A. D. Millar and C. W. Morrison*).

*Lycænesthes minima*, n. sp. (Pl. VIII., fig. 10 (♂)).

*Exp. al.* (♂), 10½ lin.; (♀), 10—11 lin.

♂. *Brown, with a slight violaceous cupreous surface-gloss; bases rather widely tinged with fuscous; a terminal hind-marginal fuscous line; cilia of fore wing brown, with a white space below apex, and another above posterior angle; of hind wing white, with narrow brown nervular interruptions. Hind wing:* On hind margin, between 1st and 2nd median nervules, a good-sized but not sharply defined round fuscous spot. *UNDER SIDE.—Brownish grey; ordinary markings (terminal disco-cellular, discal, submarginal, and hind-marginal) not conspicuously defined (especially towards hind margins), scarcely darker than ground colour, white-edged on each side, and broadly whitish mesially. Fore wing:* Discal series of markings highly irregular, forming four pairs of contiguous coalescent spots, of which the 1st and 3rd pairs are about equidistant from base, the 2nd rather nearer to hind margin, and the 4th nearest to base (being in a transverse line with terminal disco-cellular spot); usual series of submarginal lunules and hind-marginal spots indistinctly marked. *Hind wing:* A subbasal transverse series of four small, black, white-ringed spots, of which the 4th (on inner margin) is minute; discal series highly irregular, composed of eight spots, contiguous but separate (except the 5th and 6th, which are coalescent), of which the 1st and 8th are nearer, and the 3rd and 4th further, from base than the rest; submarginal and hind-marginal markings indistinct, with the exception of two rounded black spots, bounded anteriorly by a yellow lunule—a large one between 1st and 2nd median nervules, and a small one (geminate, and with a few metallic bluish silvery scales) at anal angle.

♀. Like ♂. *Hind wing*: On hind margin, near anal angle, a white or whitish line immediately before the terminal fuscous line, and indistinct traces of two small fuscous spots—one on each side of the spot between 1st and 2nd median nervules. *UNDER SIDE*.—Paler than in ♂; all the markings considerably darker and more distinct, with rather conspicuous white edging, especially the submarginal and hind-marginal ones, and the subbasal four spots in hind wing.

The very small size of this *Lycænesthes*, and the similarity of, and almost entire want of violaceous colouring in, both sexes on the upper side, render it easily recognised. The extremely broken and irregular condition of the discal series of spots on the under side, as well as the existence of four spots in the subbasal series of the hind wings, indicate an alliance with the much larger and very different *L. Amaroh*, Guér., and *L. Larydas* (Cram.); while the tint of the upper side is not unlike but darker than that of the ♀ *L. Otaielia*, Trim. As usual in the genus, the ♀ has more rounded wings than the ♂, the fore wings especially having a blunter apex and a decidedly convex hind margin.

This description is made from four examples taken by Mr. Cecil N. Barker in the coast districts of Natal, *vid.*: a ♂ at Verulam, one ♀ at Malvern, and two females on the Siquasi River. These examples are all noted by Mr. Barker as occurring on the yellow flowers of a thorny *Acacia*, the Malvern ♀ on the 9th January, 1890, the Verulam ♂ at the end of November, and the Siquasi females on the 1st December, in the same year.

*Hab.* Natal, coast districts (*C. N. Barker*).

#### Genus ZERITIS, *Boisd.*

##### *Zeritis simplex*, sp. n.

*Exp. al.* (♂), 1 in. 2–3½ lin.; (♀), 1 in. 4½ lin. Closely allied to *Z. Thyra* (Linn.).

♂. *Pale orange-yellow, with a linear fuscous edging along hind margin, only widening in fore wing at apex; bases very narrowly fuscous. Fore wing*: A fine linear fuscous edging along costa; apical expansion of dark border slight or moderate, and narrowing into the linear portion about lower radial or 3rd median nervule. *UNDER SIDE*.—*Hind wing and apex of fore wing pale greyish brown, with dark-edged whitish markings arranged as in Thyra. Fore wing*: White centres to disco-cellular and upper

discal spots much larger than in *Thyra*; no basal or subbasal black spot below median nervure. *Hind wing*: The discal irregular dentated whitish streak of *Thyra* represented by distinctly separate spots of different sizes and shapes; the submarginal dentated streak is submacular.

♀. Like ♂; in one of the two examples the pale spots of the under side are much less distinct.

The reduction of the dark border in this form is carried to the extreme short of its entire disappearance. This striking feature, in combination with the other differences above noted, may warrant its separation from *Thyra*; but it must be noted that there is evidence of linking gradations to the latter widely-spread and variable species.

Of the four specimens known to me, three are from Damaraland, *vid.*: a ♂ and ♀ collected as long ago as 1862 by the late Mr. C. J. Andersson, and a ♀ taken in the same year by Mr. J. A. Bell. The fourth is a small ♂, with the apical border in the fore wings rather wider, and the under side spots rather brighter, which occurred in a collection made in Khama's Country and Mashunaland, acquired by Mr. C. N. Barker in 1891.

A near approach to the latter example is made by a ♂ taken (August, 1890) at Port Nolloth, in Little Namaqualand, by Mr. R. M. Lightfoot, in which the dark border is quite as linear in the hind wings, and not very much wider in the fore wings; but the upper side ground colour is redder, and on the under side the basal and subbasal black spots characteristic of *Thyra* are present in a reduced form.

Another grade in the direction of typical *Thyra* is presented by two males from D'Urban, Natal, received in 1889 from Mr. A. D. Millar, in which the dark border is very much narrowed, but retains the characteristic strong exterior costal development in the fore wings, and to a less extent in the hind wings.

*Hab.* Port Nolloth (*R. M. Lightfoot*), Cape Colony; Damaraland (*C. A. Bell and the late C. J. Andersson*); between Khama's Country and Mashunaland (*C. N. Barker*).

## Family PAPILIONIDÆ.

## Genus PAPILIO, Linn.

*Papilio Junodi*, n. sp.

*Exp. al.* (♂), 3 in. 3—5½ lin.; (♀), 2 in. 11 lin.—3 in. 5 lin. Intermediate between *P. Policenes*, Cram., and *P. Porthaon*, Hew.

♂. *Brownish black, with pale dull greenish yellow stripes and spots, which in hind wing are paler, and in some lights mostly white; common basal and subbasal stripes, and discal macular band, arranged as in Porthaon; but disco-cellular transverse bars in fore wing not sinuated or angulated as in that species, but as straight as, though considerably narrower than in, Policenes; spots of common submarginal series greatly reduced, so as to be almost obsolete as regards lower two-thirds of fore wing and whole of hind wing. Fore wing: 7th spot of discal macular band wider than in either species named, more as in Policenes, but with a longer and acuter superior inward projection; small subcostal spot immediately above 2nd spot of discal series minute, scarcely noticeable; first three spots of submarginal series well marked and of moderate size, but the 4th very small, and the remaining four minute and obsolescent. Hind wing: Broad costal bar, which, as in Porthaon, mainly represents discal band, not approximating to cellular expansion of subbasal stripe, but almost as widely apart from it as in Policenes; remaining portion of discal macular band exceedingly defective, represented only by a small isolated spot between radial and 3rd median nervules, and (in one specimen) by a second similar smaller spot between 3rd and 2nd median nervules; submarginal lunulate spots wanting altogether below 2nd median nervule, and above it represented only by three minute obsolescent marks; traces of three hoary-grey broad lunulate hind-marginal marks below 3rd median nervule only; an exceedingly faint indication of an anal-angular dull red spot; tail with as much white at and near the tip as in Porthaon. UNDER SIDE.—Glistening brown, somewhat darker than in Policenes and Porthaon; markings of upper side reproduced, but of a paler tint, and the spots of submarginal series larger and not so indistinct; in hind wing, between large subbasal and discal markings and small submarginal ones, a series of six broad black internervular rays, much longer and more strongly marked than in Porthaon; series of seven crimson inwardly finely white-edged marks from costa to anal angle arranged more continuously than in Porthaon and almost as in Policenes, but black-bordered on both sides as in Porthaon, the two last marks being much more widely so bordered than in the latter species.*



♀. Like ♂, but with the usual enlargement of the basi-inner-marginal band in hind wing, and with the four lower spots of discal series in fore wing considerably wider than in ♂, and distinctly confluent. *Fore wing*: Subbasal stripe considerably wider on inner margin; submarginal spots below lower radial more elongate and more indistinct. *Hind wing*: In one example the lower, and in the other both, of the small isolated discal spots wanting. UNDER SIDE.—As in ♂, but with differences in the stripes and band corresponding with those on the upper side.

(Described from two male and two female examples).

This *Papilio* very notably combines the features of *P. Policenes* and *P. Porthaon*, as pointed out in the foregoing description, but differs from both in the marked tendency to obsolescence in the submarginal series of spots in both wings, and the total lack of the lower spots of the discal series in the hind wing.

The discovery of this species is due to the Rev. U. Junod, of Rikatla Delagoa Bay, after whom I have great pleasure in naming the insect. M. Junod did not observe the butterfly in life, the specimens sent having been taken at Morakwen, on the coast, by his native collectors, in June (?), November, and December, 1891. The first example, a small ♀, was stated to be flying high, but the others flew near the ground, like *P. Colonna*, with a rather slow but erratic course.

A small imperfect example, expanding only 3 in. 10 lin., is in the Hewitson Collection at the British Museum; its locality does not appear to have been recorded.

*Hab.* Morakwen, Delagoa Bay (*Rev. U. Junod*).

Family HESPERIDÆ.

Genus PAMPHILA, *Fab.*

*Pamphila Roncilgonis*, Plötz. (Pl. VIII., fig. 11 (♂)).

*Hesperia Roncilgonis*, Plötz, Stett. Ent. Zeit., 1882, pp. 450—51.

*Exp. al.* (♂), 1 in. 2½—3½ lin.; (♀), 1 in. 6 lin.

♂. Glossy brownish black, with four semitransparent white spots, and one more opaque yellowish spot in fore wing, and a row of four very small indistinct opaque yellowish spots in hind wing; cilia whitish, much mixed with brown in apical half of fore wing. *Fore wing*: White semitransparent spots small but very clearly defined, two contiguous (one above the other) in

discoidal cell near its extremity, and the other two a little apart below cell—the larger quadrate, between 1st and 2nd median nervules, the smaller ovate, between 2nd and 3rd median nervules; solitary almost opaque yellowish spot small, elongate longitudinally, in a line directly below cellular spots, just above submedian nervure; costa rather densely and broadly scaled with dull fulvous yellowish from base to cellular spots, and again over a small space between middle and apex; two longitudinal dull pale yellowish streaks from base, one very short, just below median nervure, the other extending along inner margin to beyond middle. *Hind wing*: Four opaque yellowish spots form a curved discal row between 2nd subcostal nervule and submedian nervure; two longitudinal pale yellowish streaks as in fore wing from base, one short in discoidal cell, the other extending to about middle between 1st median nervule and submedian nervure. **UNDER SIDE.**—*Hind wing and apical area of fore wing fulvous ochreous, very strongly glossed or "shot" with submetallic violaceous; hind wing conspicuously spotted with black. Fore wing*: Costa bordered with fulvous, brighter at base; spots as on upper side, except that the almost opaque inferior one is white; apical area crossed by six internervular well-defined black rays. *Hind wing*: Two subbasal black spots, one between costal and subcostal, and the other between median and submedian, nervures; a similar spot towards end of discoidal cell; and a strongly-curved discal series of six spots of different sizes and shapes between costal and submedian nervures; a blackish linear edging along hind margin; inner-marginal fold devoid of the general fulvous ochreous ground tint. Head and palpi black, conspicuously spotted with white; antennæ black. Thorax above clothed with pale yellowish hair, the patagia and pterygodes chestnut fulvous, the latter black-edged and yellowish-tipped; beneath apparently fulvous ochreous. Legs with black, white-edged coxæ and femora, creamy white fulvous-tinged tibiæ, and greyish tarsi. Abdomen above fuscous, densely clothed basally with long dull yellowish hair, and at tip with short fulvous hair; the segmental incisions sharply defined by slender yellowish rings; beneath creamy at base, becoming more yellow towards tip.

♀ (worn example). *Not nearly so dark, dull brown, with larger spots (especially the discal series in hind wing). Fore wing*: An additional minute round semitransparent white spot between 5th subcostal and upper radial nervules; disco-cellular spots confluent into one mesially constricted mark. *Hind wing*: Spots of curved discal row very much enlarged, forming a continuous band; a good-sized spot of the same in discoidal cell, rather beyond its middle. **UNDER SIDE.**—Hind wing and costal

border and apical area of fore wing much paler, of a greyish creamy, slightly tinged with rufous, but without violaceous gloss; discal spots of hind wing smaller.

In the ♀ the wings are more elongate than in the ♂, especially the fore wings, which are more distinctly convex about the middle of the hind margin.

(Described from two ♂ specimens and one ♀).

A worn example of the ♂ was sent to me from Delagoa Bay by Mrs. Monteiro in 1886, and a rather faded ♀ by the Rev. U. Junod in June, 1891. This latter example was followed by a ♂ in very fine condition, reared by M. Junod from the larva on 29th August, 1891.

This larva was found at Rikatla, about twelve miles from Lorenzo Marques, on a small tree, and is described by the discoverer as whitish, inclining to a bluish tint, with a dorsal interrupted black line and black spiracles. The head is brown, with a reddish brown spot on each side of its lower portion, and two double parallel black lines ending on the forehead. The second segment, hidden behind the head, is edged posteriorly with black. Anal flap semicircular, green, divided into five triangular portions by four white lines. It is very sluggish, living between the sides of a leaf which it has drawn together with silk. It very slowly changes to the pupa, gradually assuming a tinge of rusty red. Length, 1 in. 1 lin.

The pupa, judging from the skin of this individual, — which M. Junod, in forwarding, remarks is not very different from the living insect in colouring, — is sandy ferruginous; the head and back of thorax tinged with whitish, and the abdominal segments dorsally sparsely mottled with dull white, and bearing an interrupted greyish median streak marked on the 4th and 5th segments with a small but conspicuous pure white spot. The wing-covers are white. Length,  $7\frac{1}{2}$  lin.; rather stout. Attached to leaf by the tail, and by a strong silken girth round the posterior border of the thorax.

*Hab.* Delagoa Bay: Lorenzo Marques (Mrs. Monteiro), Rikatla (Rev. U. Junod), "Angola," Plötz.

*Pamphila detecta*, n. sp. (Pl. VIII., fig. 12 (♂)).

*Exp. al.* (♂), 1 in.  $4\frac{1}{2}$  lin.; (♀), 1 in. 5 lin.

♂. Dull brown, with nearly all hind wing and three longitudinal stripes in fore wing suffused with ochreous yellow, inclining to olivaceous; a discal series of small vitreous spots.

*Fore wing*: In upper part of discoidal cell, near extremity, a very small somewhat elongate spot; seven spots in discal series—the first three minute, forming a curved subcostal and subapical marking; the 4th minute, nearest to hind margin, isolated, between lower radial and 3rd median nervules; the fifth small, subquadrate, between 2nd and 3rd median nervules not far from their origin; the sixth of moderate size (but three times as large as the fifth), nearer to base, rather variable in form, but somewhat rounded on its inner side, and with a more or less prominent acute inferior projection on its outer side; and the seventh small, tinged with yellow, just above submedian nervure, and in a straight line directly beneath the disco-cellular spot; ochreous yellow stripes running from base, and consisting of a rather ill-defined subcostal and partly disco-cellular one extending as far as disco-cellular spot; a strongly-marked one of about the same length, bounded superiorly by submedian nervure, and a third inner-marginal one, bounded superiorly by submedian nervure, strongly marked, and extending almost to posterior angle. *Hind wing*: Ochreous yellow, bounded costally by a well-defined moderately wide fuscous brown border; below apex the border is not so dark, and less well defined inwardly, narrowing gradually along hind margin to anal angle; a discal series of five minute vitreous spots between costal nervure and 1st median nervule, of which the lower two or three are partly hidden by the ochre-yellow hairs of the lower disc. Cilia dull whitish. **UNDER SIDE.**—*Hind wing and wide costal border of fore wing olivaceous ochreous yellow (paler than the tint on the upper side)*; spots as on upper side, but those on hind wing all distinct and usually six in number. *Fore wing*: Wide inner-marginal area dark greyish, on which the seventh (lowest) spot of discal series (which is larger than on upper side) is conspicuous; apical area widely tinged with ochreous yellow. *Hind wing*: Inner-marginal fold less yellow, grey in tint, and smoother than rest of area.

♀. Like ♂ in ground colour and markings, but with very much less ochreous yellow suffusion, and that of a very dull and faint tint in both wings. *Hind wing*: Lower spots of discal series not obscured by hairy coating. **UNDER SIDE.**—As in ♂, but rather duller. *Hind wing*: In one example a seventh minute vitreous spot in discal row, beneath 1st median nervule.

This *Pamphila* belongs to the group of *P. Mathias*, Fab. It is smaller than any of its close South African allies, *P. Borbonica* (Boisd.), *P. Fatuellus*, Hopff., and *P. inconspicua* (Bertol.) [= *P. Mohopaani* (Wallengr.)],

but larger than the Natalian *P. Monasi*, Trim. In shape of wings, and in size, shape, and disposition of the vitreous spots of the fore wings, it is nearest to *P. Fatuellus*, but resembles *Borbonica* in its minute vitreous disco-cellular fore wing spot and olivaceous yellow under side; while the olivaceous yellow on the upper side (though decidedly deeper and more ochraceous in colour), and the position and arrangement of the minute spots on the under side of the hind wings, agree more with those characters in *P. inconspicua*. The ♂ wants the linear discal sexual badge in the fore wings presented by the last-named species and *P. Mathias*; and on the whole the species will stand best between *Borbonica* and *Fatuellus*.

Mr. C. N. Barker brought this butterfly to my notice in May, 1891, forwarding two males and two females (one pair taken *in copulâ*), captured by him at Malvern, Natal, on a yellow leguminous flower during April, and two males in March, 1892.

There can be no doubt that this form, though well marked and quite distinct upon careful examination, has been overlooked, both in the field and in the cabinet, among its near relatives in the obscure group of *Pamphila*, to which it belongs. Mr. Barker wrote that he found it not uncommonly at Malvern, and that Mr. A. D. Millar had also met with it closer to D'Urban.

*Hab.* Malvern, Natal (*C. N. Barker*).

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#### EXPLANATION OF PLATE VIII.

FIGS. 1 (♂), 2 (♀), *Lycæna Grahami*, n. sp. *Hab.* Dordrecht, Cape Colony.

FIGS. 3 (♂), 4 (♂), *L. procera*, n. sp. *Hab.* Estcourt, Natal.

FIGS. 5 (♂), 6 (♀), *L. Barkeri*, n. sp. *Hab.* D'Urban, Natal.

FIGS. 7 (♂), 8 (♀), *Lycænesthes neglecta*, Trim. *Hab.* Malvern and Sinquasi River, Natal.

FIG. 9 (♂), *L. Millari*, n. sp. *Hab.* Estcourt, Natal.

FIG. 10 (♂), *L. minima*, n. sp. *Hab.* Verulam and Sinquasi River, Natal.

FIG. 11 (♂), *Pamphila Roncilgonis*, Plötz. *Hab.* Rikatla, Delagoa Bay.

FIG. 12 (♂), *P. detecta*, n. sp. *Hab.* Malvern, Natal.